

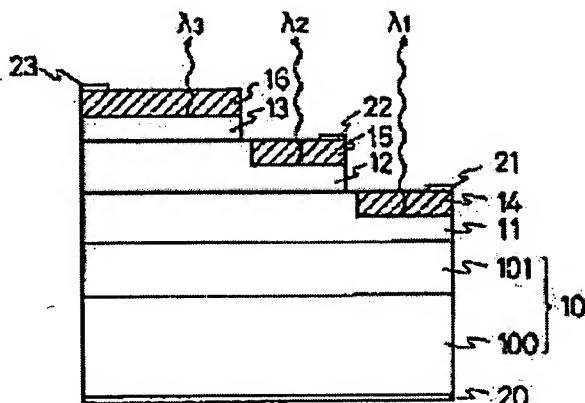
**SEMICONDUCTOR LIGHT-EMITTING ELEMENT**

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**Abstract of JP5347432**

**PURPOSE:** To provide a semiconductor light-emitting element, which is manufactured by forming a layer composed of the same system semiconductor onto one substrate, can be light-emitted in a region extending over blue from red and can be utilized as a semiconductor laser.

**CONSTITUTION:** A chalcopyrite compound semiconductor containing at least one of Cu, Se, Ga and Al is used as a material forming light-emitting sections 11, 14, 12, 15, 13, 16. The lattice constant of a  $\text{GaAs}_{1-x}\text{P}_x$  layer ( $x$  is larger than 0 and is less than 1) 101 forming a substrate and the lattice constant of the semiconductor coincide within the range of a composition ratio, in which light in a region extending over blue from red is emitted, in the semiconductor, thus obtaining a semiconductor layer lattice-matching with the substrate 40. The difference of sufficiently large forbidden band width can be acquired between semiconductors having different composition ratios selected within the range of the composition ratio, thus manufacturing a semiconductor light-emitting element capable of being utilized as a semiconductor laser.



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